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CARNEGIE

May 1953

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MAGAZINE
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The Economy of India

Approximately 1498-1650 A.D.

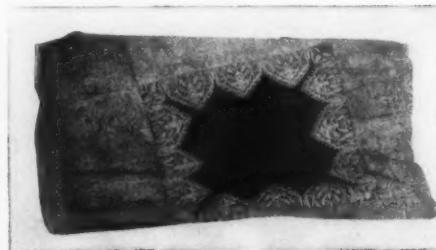
DURING THE EARLY trade monopolies of Portugal and Great Britain in India from 1498 to 1650 A.D., India was largely an agricultural country.

Self-sufficient village units raised rice, cotton, sugar cane, oil seeds, cereal grains and silk. Great landlords owned the land, and tenants paid rentals with shares of the produce. Village craftsmen were organized in guilds similar to those of Medieval Europe.

Copper and gold coins circulated during this period but did not play an important role in the ordinary worker's economic life, because goods were almost entirely transferred on a barter basis.

From 1500 to 1600, Portugal enjoyed a trade monopoly only to be supplanted by Great Britain in 1600. These foreign countries bought goods from native dealers. However, Europeans found it difficult to stimulate a high rate of production because of Indian religious beliefs that life on earth was a very unimportant phase of existence.

Outside of the European orbit in this period, India did not develop modern financial facilities because the people did not require these services. Only when a country is expanding both in industry and in commerce, do economic needs stimulate the growth of modern banking practices and a monetary system such as our society knows today.



Kashmir shawl made by Indian craftsmen of 17th Century. From the collection of the Carnegie Museum.

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COVER

The design of this month's cover is derived from Lyonel Feininger's *Regler Church at Erfurt*, an oil painting (1928) lent to the new Gallery of Contemporary Art by G. David Thompson, of Pittsburgh.

The twelfth-century church, originally dedicated to St. Augustine, became the "Regler Church" in honor of a wealthy Erfurt family. In pre-Hitler days the painting was owned by the Dessaix Museum.

This American painter, a leading figure in advanced movements in German art during long residence abroad, has said: "The mystical quality in the object has always kept me spellbound."

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CALENDAR FOR MAY

MODERN ART

A Gallery of Contemporary Art has been established in Gallery I on the third floor. This opens with an exhibition of thirty canvases including purchases made from the recent International. Readers may turn to page 153 for a full account of the project.

NATIONAL HIGH SCHOOL ART EXHIBITION

From May 2 through 31, hundreds of pieces of art and craft work by high- and technical-school students all over the country, selected from thousands of entries by an outstanding jury of artists and craftsmen, will be exhibited at the Institute. This comprises the twenty-sixth annual exhibition organized by Scholastic Magazines. A preview tea is held the afternoon of May 1, from 4:00 to 5:30 o'clock.

ON THE BALCONY

Drawings from the Permanent Collection will be hung on the balcony of the Hall of Sculpture from May 3 through June 18.

FOR THE CHILDREN

The twentieth annual Nature Contest for children of public, private, and parochial schools in the tri-state area is held May 2 at the Museum. The Contest is sponsored by the Division of Education.

The Saturday-afternoon free movies are concluded until autumn, but the 2:15 P.M. story hour for school-age children at the Boys and Girls Room of the Library continues through May.

The pre-school story hour was concluded in April.

SUMMER ADULT CLASSES

Outdoor classes in painting, photography, jewelry-making, and fly-tying are planned at the Institute for six weekly sessions, beginning the week of May 4. Varied stages of advancement are arranged for separate classes. A fee of \$12.00 is charged, and \$15.00 for portrait photography.

Teachers include Mavis Bridgewater, E. P. Couse, Angelo M. DiVincenzo, James E. Frape, Roland W. Hawkins, Roy Hilton, Daniel Kuruna, Mary Shaw Marohnic, James W. Ross, Harry Scheuch, Edward Vitarelli.

Call or come to the Division of Education to register. Mr. Frape is in charge of the class schedule.

DRAWINGS FROM *PUNCH*

One hundred and fifty original drawings from *Punch*, the British humor magazine, will be shown at the Institute from May 14 to June 14. Most of these are cartoons, on loan from prominent British collectors, and represent the work of over fifty artists including the editor, Kenneth Bird, known to readers as "Fougasse." The drawings have been assembled by the owners of the magazine for showing in several North American cities.

NEWS PIX SALON

Three hundred top news pictures chosen by the Press Photographers Association of Pittsburgh for its ninth annual showing may be seen at the Museum through May 31. Six groups of photographs are exhibited: news, sports, features, animals, society, and pictorial, with prize winners enlarged by the Pittsburgh Photographic Library at the University of Pittsburgh.

TWO NEIGHBORING LOAN EXHIBITS

The Henry Clay Frick Fine Arts Department of the University of Pittsburgh is celebrating the twenty-fifth anniversary of the department with a History of Art exhibit comprising more than fifty objects dating as far back as 1500 B.C., lent from private local collections. The exhibit runs through May 16.

The Arts and Crafts Center, Fifth and Shady Avenues, is showing a Contemporary Loan Exhibition through May 19, lent also by local collectors.

SUNDAY ORGAN RECITALS

Marshall Bidwell presents an organ interlude each Sunday from 4:00 to 5:00 P.M., in Carnegie Music Hall under auspices of the Arbuckle-Jamison Foundation.

CHILDREN'S HOSPITAL

Photographs that give a documentary report on this Pittsburgh institution are on display this month at the Museum. Esther Bubley, of the Pittsburgh Photographic Library at the University of Pittsburgh, stayed two weeks at the Hospital to get the photographs.

INTERNATIONAL SCHOOL ART

Paintings by boys and girls of grades 7 through 12 that form part of the sixth annual International School Art Program may be seen at Carnegie Library Mondays through Saturdays, 9:00 A.M. to 9:00 P.M., to May 21. Paintings from the United States and other countries are included. This exchange project is sponsored by the American Junior Red Cross and the National Art Education Association.



Very well then, hands up all who propose to become birds.

I AM "EXHIBIT A"

An address given at the Scholastic Awards jury dinner in Pittsburgh last month

GLADYS SCHMITT

I AM a girl who won a Scholastic Literary Award when the Scholastic Literary Awards were in their infancy, and who has since "made good." To be more specific, I won third prize in the poetry division back in 1927. Since then I have published four novels, two of them best-sellers and choices of the Literary Guild, one of them a flop, and one of them—the first—a "critical success," which means that the critics liked it very well indeed, but that there was no where-withal to speak of therefrom. Still, I am a girl who made good after winning a Scholastic Literary Award at the age of eighteen. And that, I assure you, was a long time ago.

A very long time ago, and yet I remember every detail of the experience. I remember the paper I wrote the poems on—it was tablet paper and the ink spattered all over the place. I remember the raw spring day when I mailed my contribution. I remember, too, the envelope with the grey and yellow border that the announcement of my prize arrived in. Mr. Robinson has probably forgotten those envelopes—doubtless the design has been changed twenty times in the interim—but I never will.

The reason for such detailed remembering is plain: our perceptions are sharp and clear

Gladys Schmitt (Mrs. Simon Goldfield) is our city's No. 1 literary personage, with four novels to her credit, of which two are best-selling Literary Guild selections. Dr. Solomon B. Freehof's review of her most recent, *Confessors of the Name*, has been carried forward to next month's issue of *CARNEGIE MAGAZINE*.

Associate professor of English at Carnegie Tech, Miss Schmitt is a graduate of the University of Pittsburgh and of Schenley High School, Pittsburgh.

in our heroic moments, and winning that national prize in Scholastic Awards was one of the most epic things that ever happened to me.

Young artists are at best a shy, uncertain lot. I was one myself, I grew up in a crowd of them, I teach them at Carnegie Tech, I have one at home with me in the shape of a painting niece, and I ought to know. Young artists may flash their gaudy feathers about; they may make loud noises and wide gestures in the face of fate; still, being artists and reverent before their arts, they are shy and uncertain in their parti-colored clothes. They suspect themselves of being a little crazy, and that suspicion is not always removed by the comprehension and sympathy of a somewhat hurried and practical world.

Art is a sacred mountain, frightening in its austerity. There, one always expects to fall into a pit or to hear a Bronx cheer—a thing that can be quite as distressing as a lion's roar. And how blessed it is to receive a grey and yellow envelope, a pass to that mountain, a solid right to walk upon it, I and hundreds of other Scholastic Awards winners are lucky enough to know.

Bear with me a little, while I tell you certain specific things which that Scholastic envelope brought to me. It brought me a scholarship to the University of Pittsburgh. It brought me into contact with the people of my own city who knew and loved the field of art that I was working in. It gave me reason to hold up my head among my contemporaries—even the kings of the football field and the belles of the ball. It gave my parents the assurance that I was not chasing a will-o-the-

wisp, and courage to encourage me. Also, it actually made a marked difference in the practice of my art.

To be an individual artist, to draw on those qualities which are singularly and preciously his own, any creative worker must trust himself. The faith of others is what he needs; it somehow sets him free to dip and rise and soar. In the year after I won a Scholastic Literary Award, my capacity to write took its longest leap forward. I tried more things, I worked harder, I saw further into my problems and my possibilities than I had ever done before. All this came to pass simply because, since others had found the work that I was doing good, I had sound reason to trust myself.

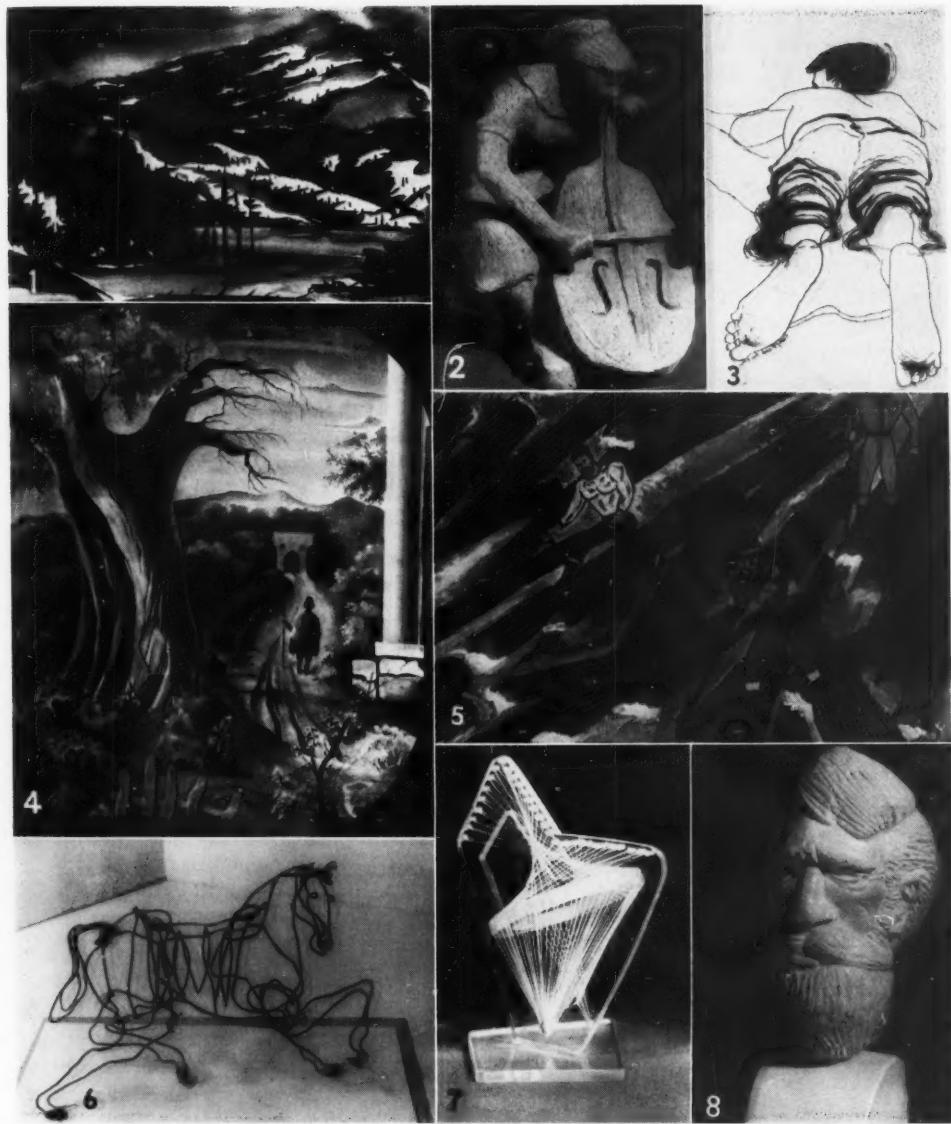
I think I became a better human being, too. I became a more effective one, at any rate. I took pride in my work—I straightened up and wore my work as a more fetching girl might wear a rose in her hair. I also lost the most persistent and debilitating of all adolescent notions: the notion that I was strange and alone.

Now I have heard only one question ever raised about Scholastic Awards. I have heard it said now and again that the Awards are "competitive," that they give the winners questionable pleasure and wound the feelings of those who don't win. With your indulgence, I'll take a few minutes to reply.

First of all, I wonder why Scholastic Awards should be singled out to be questioned on the ground that it is competitive. Football is competitive. Love is competitive. Marks are competitive. The academic world on the faculty level is competitive. Sparrows are competitive, and fish, and roots and seeds. St. George competed with the dragon, the Achaians competed with the Trojans. Satan and God compete in *Paradise Lost*. My mother, the most peaceable of women, will compete with any of you—and roundly, too—in an

exchange of recipes. There's hardly one of you sitting at this table who didn't find himself at some time today in a competitive encounter. There's hardly one of you who—except for the fact that you're all, of course, in a state of sound mental health—couldn't take some incident from his life today and convince himself thereby that he'd received from it either a bloody nose or a laurel wreath. Nobody would—or could—legislate that the winner of the track meet should have no more female adoration than the boy who made it third across the line. No corporation president within my knowledge feels that he'd be in better spiritual shape if he were known only as one of a long list of unnumbered vice-presidents. Even head ushers in Radio City wear their badges with pride. Why then should the artist—whose work is the loneliest, whose spirit is the most insecure, whose rewards in fame and money are not likely to be very great—why then should he alone be denied the blessed assurance of a public gesture made in his behalf?

Nor can I believe that those who try and fail to place are done any harm by that experience. They have had, at the very least, the pleasure of trying, the sense of richness and force that comes of setting an inward thought on a canvas or on a page. They have, on their own side, the sound arguments that one set of judges is not infallible, that other contests will come, in and out of school, that those who win the top prizes are not always the ones who turn out in the end to lay hold on the highest success. They have the assurance that their teachers have found their work valuable—a fact made plain by their having been encouraged to enter the contest. And they also have a mass of the best work placed before them when the contest is over—work from which they can learn, work on which they can build standards of their own, work which would never have been assembled for



NATIONAL HIGH SCHOOL ART EXHIBITORS

Arts and crafts by the following: 1. Wayne Angel, Klamath Falls High School, Oregon; 2. Emma Baer, Peabody High School, Pittsburgh; 3. Carl Kock, Lane Technical High School, Chicago; 4. John Schwieger, Gering High School, Nebraska; 5. William Shelby, Voshon High School, St. Louis, Missouri; 6. Dolores Clayton, Mt. Vernon Township School, Illinois; 7. Nancy Wallner, Rufus King High School, Milwaukee; 8. Randolph Brozek, New Free Academy, Newburgh, New York.

them if there had not been a Scholastic Awards organization and contest.

Art is long—believe me, it can be very long. As I said some moments back, I received third prize in poetry when I was eighteen. I published my first short story when I was twenty-seven—which shows that the pauses which come between the glories in an artist's life can be very long indeed, as long as nine years. How many times in that nine years I turned back to my high-school prize, how many times I said to myself, "Keep going—you must be good—you won third place," what a warm fire that was in the chill and what a bright spot in the waiting, it would be hard to find words to tell. But I have known some others who have had the same experience. I have talked to some others whose waiting time was equally long, and we know what we mean when we say, "Thank God for Scholastic Awards."

Of course, not all young artists are as uncertain as I was. Still, I have never encountered one who walked into the Awards with competitive arrogance or one who walked away wearing his gold key with anything more than a becoming pride. Actually, you know, gold keys are a mellowing influence. The youngsters whose work was exhibited at Kaufmann's here—we watched them and we listened to them—admire each other's productions and learn from that fine, varied collection spread out for them year after year. Trusting themselves and the worth of what they create, young artists—whether they win or merely place—can afford to give others a little Christian generosity.

I have, as I have said, a painting niece at home. She belongs to the next generation of Scholastic Awards people, and she and I have compared notes. Her situation is somewhat different from mine. She is not a lonely artist—painters old and young come in and out of our house. She is not dubious about her

chosen field, either: if she thinks artists are crazy, she'd add at once that they're very amiably so. Nevertheless, I think she would be a worse painter and a less happy person without the Awards. Four times now—she's a senior—she has pulled herself together with Jean Thoburn's good help to get ready for Scholastic Awards. Paintings that I'd thought she'd abandoned for good were revived and finished as the deadline came over the horizon. Skills I'd thought she'd never use again were brought out of hiding. The midnight oil was burned, and the exciting sessions with other young painters were begun. And all this goes on not for a competition. It goes on to prepare for a high occasion, to make ready for the one national festival instituted for young intellects who also have their needs, who also deserve some fruits of their solitary labors, some backing for their hard-won pride.

No, I have known Scholastic Awards now for upward of twenty years. I have known it intimately. I have screened the manuscripts and even helped to catalogue some of the exhibitions. I have been a candidate, a winner, a sorter-outer, a regional judge, a national judge. I have known other winners as friends and as students. I have seen those who did not win come back without the slightest bitterness. I have watched one small competitor—who sometimes wins and sometimes doesn't win—graduate from crayons to oils under my roof. And never, not once, have I felt any shadow of doubt or taint of regret.

The Awards—to me personally and to me as a teacher and a friend and a substitute parent—have always seemed one of the most fruitful and honorable aspects of education in the U.S.A. Twenty-odd years of experience have not decreased my original enthusiasm. The very name "Scholastic" on a letterhead or an envelope still evokes in me a surge of gratefulness.

A NEW GALLERY OF CONTEMPORARY ART

GORDON BAILEY WASHBURN

SIMULTANEOUSLY with the appearance of this announcement, there will be opened at Carnegie Institute a new Gallery of Contemporary Art. The room initially chosen for the project (Gallery I) is on the third floor, and was used to house the Dalzell Collection before those pictures were moved to more appropriate quarters in the handsome foyer of Carnegie Music Hall.

Everyone recognizes that judgments in the field of contemporary art must be tentative and open to correction. With this in mind, the Fine Arts Committee on November 7, 1952, approved the establishment of a separate Gallery of Contemporary Art, entirely independent of the permanent collection.

This gallery will provide the Department of Fine Arts with an opportunity to approach its purchasing in the contemporary field with something of the freedom of the private collector, leaving it in a position to correct mistakes and gradually to perfect its collection. Pictures, sculpture, prints, and decorative arts of an advanced character will always have immense temporary use for art lovers, teachers and students, even though only a few such works are likely to have lasting value. According to this approach, however, they may serve their period of usefulness as long as it lasts. Once their temporary virtue is exhausted, they may be replaced with better—or newer—material.

This plan will make it possible to offer our visitors a lively and unconfining collection of current art without crystallizing it by any precipitous claims of permanency. It recognizes

the fact that contemporary art needs to be seen and studied over a longer period of time than temporary exhibitions allow. Such work, which is sometimes startling at first, needs to be lived with and pondered over before we are capable of judging its permanent worth. In the meantime, the visiting public is offered ample opportunity to become intimately acquainted with the current trends in art and to study individual examples of the best that is being created in our time.

A similar plan was first inaugurated at the Albright Art Gallery in Buffalo, New York, about fifteen years ago, and has provided a useful approach to this difficult problem. Other museums, including the Museum of Fine Arts in Boston, have also adopted the scheme as the most flexible solution that has yet been proposed for a general museum of art.



FRAGMENTS OF MUSIC BY MARIO SIRONI
Purchased through the Patrons Art Fund
for the new Gallery of Contemporary Art

Properly enough, the following purchases from the 1952 Pittsburgh International, together with several recent gifts, will provide a nucleus for this promising undertaking. These purchases, here announced for the first time, were made by the Fine Arts Committee on the recommendation of the Director of the Department, and were bought with money from the Patrons Art Fund:

Jean Bazaine (French)	<i>Dawn</i>
Leonardo Cremonini (Italian)	<i>The Slaughterhouse</i>
Alfred Manessier (French)	<i>Games in the Snow</i>
Samuel Rosenberg (American)	<i>Time Echoes</i>
Mario Sironi (Italian)	<i>Fragments of Music</i>
Jacques Villon (French)	<i>Portrait of the Artist</i>
Fritz Winter (German)	<i>Elevation</i>

As the inaugural exhibition suggests, it is by no means intended that the Gallery of Contemporary Art should be reserved exclusively for pictures purchased or owned by the Institute. Our opening exhibition contains five recent gifts as well as many other pictures that have been borrowed from Pittsburgh collections. Four of these gifts, as well as the largest part of the loans, have been made by G. David Thompson, an avid collector of modern art for over twenty-five years. It will be seen that Mr. Thompson's gifts include two paintings which he bought from the 1952 Pittsburgh International (the Mendelson at our urging), and two that date from an earlier day. To his generosity we owe the following works, the first four of which he has donated to the Department of Fine Arts:

Antonio Corpora (Italian)	
	<i>The Great Sailing Vessel*</i>
Arthur Dove (American)	
	<i>Oil Drums</i>

Marc Mendelson (Belgian)

*Deadly Nightshade**

Jean Metzinger (French)
Man with Pipe

Josef Albers (American)
Bent Black

Jean (Hans) Arp (German)
Interrégne

Max Beckmann (German)
Through the Window

George Collignon (Belgian)
*Painting, 1952**

Lyonel Feininger (American)
Regler Church at Erfurt

Albert Gleizes (French)
Along the Avenue

Adolph Gottlieb (American)
Niade

Marcel Gromaire (French)
Bathers

Wassily Kandinsky (Russian)
Abstract Composition

Paul Klee (Swiss)
Ob! the Rumors

Fernand Léger (French)
Dancing Figures

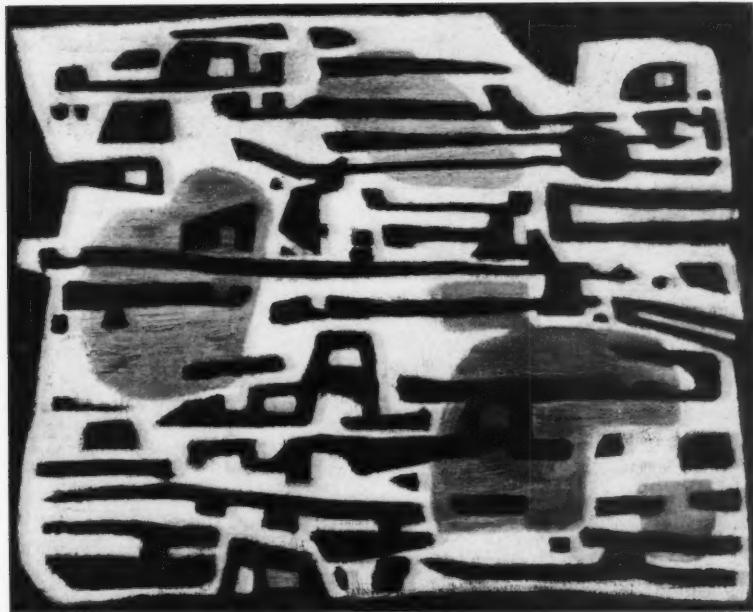
Marino Marini (Italian)
Horse and Acrobat

André Masson (French)
Horses Devouring Birds

Alfred H. Maurer (American)
Head



HURRICANE BY WILLIAM KIENBUSCH
Lent by Kraushaar Galleries



GAMES IN THE SNOW BY ALFRED MANESSIER
Purchased through the Patrons Art Fund for the new Gallery of Contemporary Art

Joan Miró (Spanish)
Woman at Sunrise
John Piper (English)
Abstract Composition
Antonio Tapies (Puig) (Spanish)
Garden of Batafra
Theodor Werner (German)
Abstract Composition
*From the 1952 International

Other notable modern works included in this initial hanging of the Gallery are the following, the first of which was bought for the Institute by Mr. and Mrs. James H. Beal, out of our recent International:

Fausto Pirandello (Italian) *Nude*
Balcomb Greene (American) *Abstraction*
Lent by Mr. and Mrs. James H. Beal, Pittsburgh
Salvador Dali (Spanish) *Essai Surrealiste*
Lent by Mrs. Katharine Falk, New York City
Richard Diebenkorn (American) *A Day at the Race*
Lent by Paul Kantor Gallery, Los Angeles

William Kienbusch (American) *Hurricane*
Lent by Kraushaar Galleries, New York City
Antonio Music (Italian) *Montagna Bianca*
Lent by Herman B. Sarno, Pittsburgh

It is the intention of the Department of Fine Arts to change the contents of the Gallery of Contemporary Art as new material is borrowed or acquired, and to keep the room always open to visitors during gallery hours. In time its exhibits may be extended into other third-floor space, and will include small exhibitions of contemporary decorative arts as well as sculpture and prints. The loans from Mr. Thompson's collection will remain until July 1.

Mr. Washburn is director of the Department of Fine Arts at Carnegie Institute. He here discusses an innovation in the Department which will be of especial interest to devotees of contemporary art.

JOHN O'CONNOR RETIRES



MR. O'CONNOR

of this city, as well as regret in art circles everywhere.

"It is with deepest regret that we announce Mr. O'Connor's retirement," President James M. Bovard of the Institute said on April 7. "His departure from active participation in his chosen field will be felt throughout the art world but most keenly in Pittsburgh, where he has devoted so many years of his fruitful life. His decision was based on his desire to retire for reasons of health, and we wish him Godspeed.

"Mr. O'Connor's service at Carnegie Institute over the past thirty-three years has endeared him to thousands. The tremendously difficult tasks he has undertaken in arranging and staging large exhibitions, plus his wide knowledge of art history and art trends, have made his name a byword where fine art is discussed. His vast friendship among art patrons and artists here and elsewhere has brought great credit to this institution over many years."

Coming to the Institute as business manager in the fine arts department in 1920, Mr. O'Connor has served the department through the administrations of all three of its directors—the late John Wesley Beatty, Homer Saint-Gaudens, now director emeritus, and Gordon Bailey Washburn, present director. In 1935 he was made assistant director of the department, and in 1949, associate director.

THE decision of John O'Connor, Jr., to retire from his position as associate director of fine arts at Carnegie Institute, effective May 1, brought immediate reaction in news and editorial pages

From 1941 through 1945, during the absence of Mr. Saint-Gaudens on active military duty in World War II, he served as acting director. In that capacity he organized the Founder's Day exhibitions, including three showings of Painting in the United States, and presented a number of notable special exhibitions.

Mr. Saint-Gaudens once wrote: "I have never been quite sure what 'the humanities' meant. But I do know that in John O'Connor lies the essence of 'the humanities' Without him I hate to think of what would have happened to the Internationals during the twenty-nine years of my tour of duty."

From Mr. Washburn: "John O'Connor's selfless devotion to the interests of the Department of Fine Arts, his warm friendliness and his absolute reliability—combined with the charm of his personality—have made him an associate director unique in the art world. Such a human being is irreplaceable though others may succeed him."

Mr. O'Connor intends to continue his residence in Pittsburgh and we are sure that all readers of the *CARNEGIE MAGAZINE* join the staff in extending best wishes to him and in hoping that his lucid and scholarly articles will continue to appear from time to time. Carnegie Institute and the people of Pittsburgh are fortunate that he will be near at hand for his wise counsel and advice.

WANTED: LECTURE SPONSORS

THE price of sponsoring one (or rather, a pair) of the popular Tuesday-evening travelogues to be enjoyed next winter by members of Carnegie Institute Society is \$250, and not the higher rate previously announced in error.

Business firms and individuals interested are urged to discuss this possibility with the Institute's Division of Education.

EARLY AMERICAN SILVER



CHILD'S CUP AND TWO VIEWS OF A TANKARD MADE BY JOHN CONEY, BOSTON SILVERSMITH (1655-1722)

THE silverware made by the smiths of the Massachusetts Colony is among the earliest product of any native-born craftsmen on the North American continent. Almost all the pieces have an extraordinary historic interest and many of them are directly related to the stirring events of the early colonial settlement. The silverware of that period was used for a host of practical purposes by the people of the colony, and was also applied largely to ecclesiastical purposes. Some of the original pieces are still in the churches for which they were first ordered.

The raw material was generally silver coinage of great purity, frequently without any alloy whatever. Because of the absence of alloys, especially copper, an exceptionally pure color is characteristic of the better pieces of that time. Since there were no banks in the early colonial period, merchants and capitalists frequently turned their metal money over to silversmiths for fashioning into various forms, both for utility and as a sort of savings bank, the precious metals being deemed safer in this form than in the form of loose coins.

Some of the early invoices of the silversmiths consist of receipts for a certain amount of coinage with a deduction for the coins fabricated into silverware and a return of the unused balance.

The current showing at Carnegie Institute consists of three pieces of early American silver made by John Coney of Boston (1655-1722); spoons by John Edwards (1671-1746) and William Cowell, Jr. (1713-61), both of Boston; a ladle by Hester Bateman and a tea caddy by Henry Chawner, both of London, England, in the time of George III.

John Coney was one of the earliest American-born silversmiths, his father having migrated in 1634 from Boston, England, from which the Massachusetts town took its name. Coney, the silversmith, was born in 1655, and his work is among the best known and most valuable of any American silver. His apprentice was Paul Revere, Sr., then known by his French name of Apollos Rivoire. The son, Paul Revere, Jr., the hero of Longfellow's poem, later became the outstanding silver-

[Turn to page 174]

Something has been done about Color

COLOR and "weather" formerly had much in common. Nothing much was done about either.

There still is not very much a person can do about the weather except perhaps prepare for it.

About color, however, there are a great many things that can, and are being done.

Pittsburgh research and experience have proved that

One—Color has inherent energy

Two—Color can be used scientifically

In its work with color, Pittsburgh found that some colors induce happiness and some make us sad. Other colors make us calm and some tend to cause confusion.

These and other color facts have been incorporated into Pittsburgh's Color Dynamics—the internationally famous basis for modern painting and decorating.

Color Dynamics is an outstanding contribution to better living for millions of Americans.

It has created new and pleasant surroundings in factories, hospitals, schools, homes, stores and other places in which men and women work and live.

The drab, bleak, inefficient or inharmonious color schemes of yesteryear are being changed with Color Dynamics to smooth, beautiful and functional color patterns as modern and efficient as the world of tomorrow.



PITTSBURGH PLATE GLASS COMPANY

NEWS PIX SALON

MORRIS BERMAN

THERE is no question that pictorial journalism has been recognized as an important medium of reporting the news.

What better proof than the annual News Pix Salon of more than three hundred of the best pictures of 1952 now on exhibition in Carnegie Museum from April 19 through May 31? It is sponsored by the Press Photographers Association of Pittsburgh.

But there is always that question whether news or pictures are the more important.

As a reporter for nine years I learned that while it was important to be on the scene for the best observations of what had happened, it could be covered almost as well by using a telephone or interviewing eyewitnesses long after everything was over.

But as a news photographer for sixteen years, I have found that the best pictures are taken "on the spot" at the time of the happening. If we are late, there is only the aftermath to photograph, and sometimes by using imagination and ingenuity the news cameraman can bring back an effective picture. But he cannot depend on the telephone or the eyes of a man on the scene for his picture.

But in all fairness to the working reporter, the photographer will admit they must work

Mr. Berman has been staff photographer for the *Pittsburgh Sun-Telegraph* the past seventeen years, earlier for nine years was a reporter on the *Wheeling News-Register*. He has won many national awards, this year has two pictures in One Hundred Best Pictures of the Year. He is active in the local and national Press Photographers Association, and is the commander of Pittsburgh Variety Post 589, American Legion.



DON'T HURT HIM, DOC!

BY MORRIS BERMAN (*Pittsburgh Sun-Telegraph*)

hand in hand so that the picture becomes a living illustration of what the reporter must write. Most reporters will let the news cameraman take his picture first on a fast-breaking story, and then the story is written around the photograph. So it is plain to see that the picture and the written word really share the same honors.

This all sounds as though the photographer is sensitive. And that we are, because our sensitivity revolves about pride in our work. The photographer today has come a long way from the shabbily depicted Hollywood-type news cameraman—and rightfully so!

In the photographic exhibit at Carnegie Museum will be seen evidence of the pride he takes in his work. The public will be amazed at the fine quality in pictures of six classifications on display: news, features, sports, animals, society, and pictorial.

The boys have their own organization, known as the Press Photographers Association of Pittsburgh, which is composed only of working news photographers. Monthly meetings are held, and problems are discussed and solutions suggested. The annual photo exhibit is the culmination of their best work, and they puff out in pride as they see their prize winners hanging in Carnegie Museum.

And there is a national organization of Press Photographers, too, which strives to improve working conditions throughout the nation, battling to enact laws that would protect the news cameraman from unprovoked attacks while pursuing his duties, or attempting to get the working photographer into courtrooms, so that he can report the news with his camera just as the reporter does with his pencil.

So—what really is a news photographer?

Above all, he is a student of man's behavior. He can be gracious, cunning, and ruthless. And he can turn each, or all, on or off with the quick switch of a situation.

He is an artist. He is a craftsman. He is a reporter. He brings to the reader the pathos, the struggle, the beauty. His scene is the passing scene of man's

struggle for whatever, wherever.

The news photographer is the man who more often than not anticipated and finally saw, so that you could see too what you might never have seen, even had you been there. The difference between a photograph and a news picture is that a photograph is a still life and a news picture is still living. And unless it seems at the point of returning to life, it is not what the editor ordered.

You may ask what a photographer needs if he is to become a photographer of news. Well—he needs what a poet needs, or a novelist, or a dramatist, or an artist. He needs that mysterious sixth sense by which a man detects a climax. It is something you can't define.

But there are certain writers who do, with their very first sentence, plunge their pen like a dagger into the heart of the story and enslave your interest from the start. The dramatist does likewise, but he reserves his climax for the final curtain to heighten the suspense.



AFTER THE BALL IS OVER BY GEORGE FLEGAL (*Pittsburgh Press*)

Then, perhaps we can put it plainly by saying that a news photographer must be the dramatist of the lens, the headline writer who works with his camera in the lights and shadows of life.

In this sense only is it true, as the Chinese philosopher remarked, that "a picture is worth ten thousand words." A poor picture is not worth ten thousand average words. An average picture is not worth ten thousand excellent words. It depends on the picture and the words, and on the event they attempt to portray. The pictures of the zeppelin at Lakehurst exploding in flames and falling like a slow comet to earth were worth ten million words.

The newspaper photographer, then, is ultimately an artist. There is no story more real or of more continuous importance to the people of a modern city than the story its press photographers have to tell.

And how they have told it with their cameras you can see for yourselves now at the annual News Picture exhibition.

NEWS PIX PRIZE AWARDS

NEWS

First: Edward Frank (*Press*)—(top prize of show)
Overcome Horse Gets Oxygen
Second: John Alexandrowicz (*Sun-Telegraph*)
Emergency Room Drama
Third: Joseph Lafferty (*Beaver Falls Tribune*)
Get A Doctor

FEATURES

First: John Alexandrowicz—*Hopeful*
Second: Morris Berman (*Sun-Telegraph*)
Don't Hurt Him, Doc!
Third: George Flegal (*Press*)—*What's My Name?*
Honorable Mention: Dale Gleason, Albert M. Hermann, Edward Frank (all *Press*)

SPORTS

First: Don Bindyke (*Post-Gazette*)
I'll Smack Your Sassy Face
Second: John Alexandrowicz—*Sliding Home*
Third: George Flegal—*After the Ball Is Over*



EARLY BIRD GETS THE WORM
BY CHARLES STUEBGEN (*Pittsburgh Post-Gazette*)

Honorable Mention: Dave Evans (*Sun-Telegraph*), Albert M. Hermann, (*Press*), Warren Brennan (*Press*)

PICTORIAL

First: Walter Stein (*Associated Press*)
Pastoral Romance
Second: Walter Stein—*New England Light*
Third: John Alexandrowicz
Construction Through Destruction

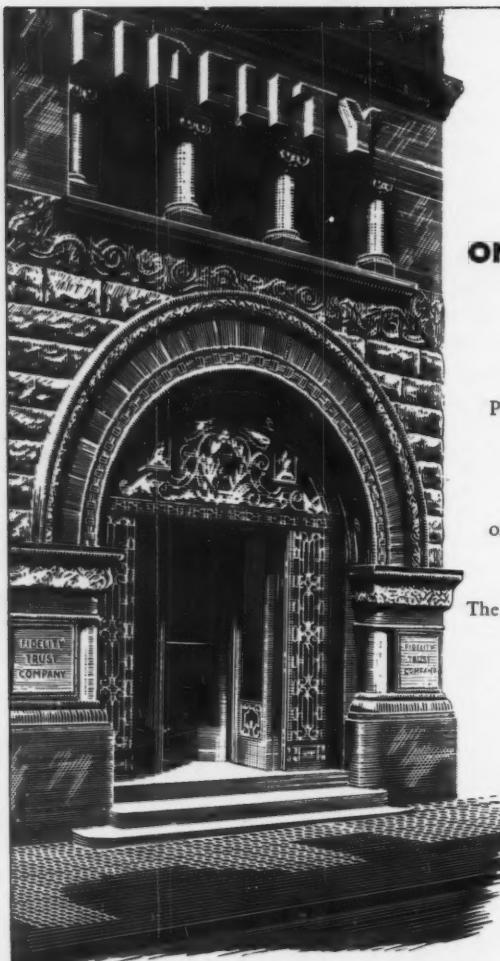
Honorable Mention: Walter Stein

ANIMALS

First: Charles Stuebgen (*Post-Gazette*)
The Early Bird Gets the Worm
Second: John Alexandrowicz—*Three Little Kittens*
Third: Walter Stein—*Janie and Her Pet Robin*
Honorable Mention: James G. Klingensmith (*Post-Gazette*)

SOCIETY AND FASHIONS

First: A. Martin Hermann (*Press*)
Mother and Daughter
Second: James G. Klingensmith—*The Lucky Dog*
Third: A. Martin Hermann—*Fifi*
Honorable Mention—Morris Berman



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THE HOLY PEOPLE—NAVAJO

JOSIAH R. EISAMAN

SQUEEZED by the San Juan, Colorado, Little Colorado, and Puerco rivers and by the 108th meridian, are more than twenty-five thousand square miles of formidable desert, the most extensive tract of undeveloped reservation land within the United States. To this arid desolate area about the size of the state of West Virginia, the Navajo race—self-named the Holy People—was relegated after the treaty of 1869. Having lost everything but his appetite to the white man, this was to be his very own.

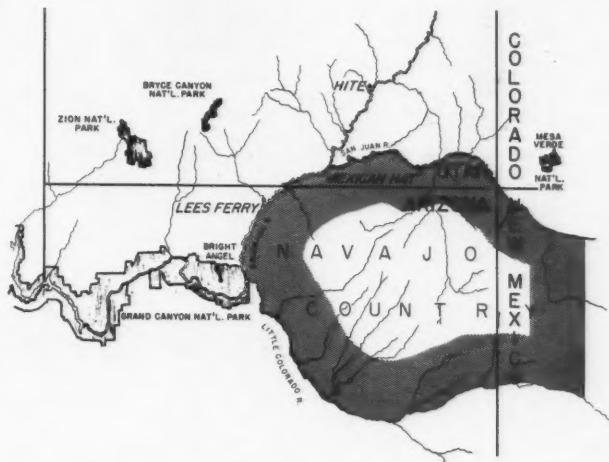
This reservation was our objective as we approached by foldboat through 168 miles of turbulent, muddy Colorado River. Frank Wright and Jim Rigg, veteran boatmen of the Colorado, had generously proposed that Frank "Fisheyes" Masland and I join their group of three San Juan River boats in a run from Hite, Utah, to Lee's Ferry, Arizona, ostensibly to dedicate a memorial plaque to the late riverman and his wife, Norman and Doris Nevills.

Early one morning, across a river flowing at forty-four thousand cubic feet per second, we were hailed by the other nine members of the expedition. By midafternoon, our frail little canvas and rubber foldboat had been assembled and the flotilla was drifting swiftly down river. "Fisheyes" and I, cramped on the bottom of our glorified kayak, were paddling behind as a safety precaution. The river was swift and the first rapids

were of minor character, but with the shallow draft of our boat we were soon taking water over the bow—my station.

Our first camp was at Tickaboo Canyon (mile 148). Here the canyon walls took on an appearance familiar because of our canyon trip two years preceding, and the stratigraphy was more definite. The well-known Navajo and Wingate sandstones, Chinle shale, Chinerrump and Moenkopi strata, assumed greater importance because of their likely uranium content. These formations rose out of the water and became precipitous. Many vertical walls were patterned and curtained by ever-present shining black desert varnish which had trickled from the high rocky crests.

Late one afternoon we landed at Hole in the Rock, a historic Mormon landmark. In 1879 a band of Saints, bound for San Juan County, arrived here and were delayed for two weeks blasting and chiseling a narrow



NAVAJO COUNTRY AND THE FOUR CORNERS AREA

defile to the river. This enabled them to float 82 wagons across on rafts. Ascent of the east wall then required another fortnight. Despite wind which made the foldboat unmanageable we landed to view that heroic undertaking. Abandoned tools and wagon parts are still to be found.

That night, landing below the junction of the San Juan River, where twenty thousand more cubic feet of water per second was thrown into the river, it was quite apparent from the color of the water that 60 per cent of the Colorado's silt was washed from the San Juan watershed.

Frequent explorations were made into side canyons. One of these, Hidden Passage, a deep narrow serpentine crevice, finally narrowed until we could squeeze no farther. What a trap this would have been in a flash flood! Other canyons afforded some fresh-water streams, ruins of ancient cliff dwellings, deep caves and pools, and at times clouds of mosquitoes.

In Music Temple, a vaulted dome 500 feet deep and 200 feet in height, with a small lake and a narrow slit looking to the sky, was found the name of "Dellenbaugh 1871," a member of Major Powell's unsuccessful second expedition. It was here that the two

Exploration by foldboat is only one among the many outdoor adventures of Dr. Eisaman, whose latest appearance in *CARNEGIE MAGAZINE* was an account of a voyage to the Galápagos Islands, published last year. Between journeys he serves on the staff of Elizabeth Steel Magee Hospital and as associate professor of obstetrics at the University of Pittsburgh.



CAMPING ALONG THE COLORADO RIVER IN ARIZONA.
DR. EISAMAN STANDS BY THE FOLDBOAT AT RIGHT.

Howland brothers and Dunn carved their names—their eternal monument, for they never saw civilization again.

Frequently there was a mountain of driftwood to be kindled. A local order of D.W.B. (driftwood burners) was established and initiated only those who could light a pile with one match. We were not guilty of vandalism—nothing more in the canyon was combustible.

At Bridge Canyon, we arrived in a blustering sandstorm. Here in 1950 we had been surprised by a midnight flash flood and lost two boats and food. But after a night's rest we were off early in the cool of the morning on a six-mile climb to the largest and most beautiful of all known natural bridges, Rainbow.

Nonnezoshe (Stone Arch) we had visited before, but the picture never palls. The graceful red sandstone arch frames distant purple Navajo (Holy) Mountain, that great symmetrical unerupted volcano. The majestic bridge, the result of boring by a meandering stream, might be classed with the wonders of

the world. From stream bottom to top it measures 309 feet. The span is 279 feet.

Led by an Indian in 1909, Professor Byron Cummings from the University of Utah was the first white man to lay eyes on this natural wonder.

At the bottom of the south buttress is a dark alcove lined with dripping moss and tiny orchids and a small natural basin of most appreciated water. It may have been a profane act to crawl to the top of this almost sacred arch, but it was accomplished with the aid of footholds and ropes. From the crest



Walter E. Masland

THE CANYON DE CHELLY FORMED KIT CARSON'S TRIP

we could scan the winding rocky canyons on all sides.

Outlaw Cave, a deep recess in the west wall just over the Arizona line, was once the hide-out for an alleged horse thief. At least we found his name, Neal Johnson. A camp here assures protection against all discomforts but sandstorms and Moqui lice.

About the time the Declaration of Independence was being signed, Fathers Dominguez and Escalante left Santa Fe in New Spain hoping to find a new route to California. Six months later their frustrated, starving group, having slaughtered pack animals one by one, was fording low water of the Colorado after gouging steps for their horses in the steep rocky canyon wall. Here at Padre Creek is found a memorial plaque.

Whisked through Paria rapids at Lee's Ferry we were met by a group of friends of the renowned riverman and his wife, Norman and Doris Nevills. Many had come a long distance to honor that valiant couple who for years successfully cheated the rapids of the Colorado only to lose their lives in their little plane. The memorial tablet executed by one of our group, Mary Abbott of Concord, Massachusetts, and secured to a huge boulder high on the west wall of Marble Canyon, is inscribed: "They now run the rivers of Eternity."

Again Frank and I find ourselves in the heart of the Navajo Country. Mile-high Monument Valley, straddling the Utah-Arizona line, has many grotesque and inspiring geological formations such as great spires, buttes, and natural

arches. This area is the residuum of a vast inland sea. With the uplift of the earth the profile of the land was changed, marked erosion occurred, and now only the more resistant red sedimentary formations remain, some of which rise a thousand feet above the valley floor.

Harry Goulding and his wife Mike are the only whites who own property in the Navajo Reservation. Harry entered the valley thirty years ago as a sheepherder. He established a trading post, became godfather to the Indian and is known as Big Sheep. At his post he counsels and comforts the Indians and exchanges necessities of life for hides, wool, and blankets, or in dire need for pawn, with the understanding that the object pawned will never be sold so long as the rightful owner lives.

Whence came the Indian? "The People," one of many Indian groups, legend states, as-

ceded from the earth through a reed in a lake. However, anthropologists have better authority that the ancestors of the aborigines crossed over Bering Strait from Asia in a series of unorganized migrations beginning possibly fifteen to twenty thousand years ago.

It is generally believed that the Navajo moved into the Southwest from the North some time before 1100 A.D. They found the area occupied by various Pueblo groups such as those at Chaco Canyon, New Mexico, and Mesa Verde, Colorado. Unlike the sedentary Pueblo, the Navajo were nomadic wanderers who have retained their way of life up to the present time.

By the time of the Civil War the Navajos had become notorious raiders, no doubt abetted by introduction to the white man's "murder stick." In 1863 Kit Carson was ordered to destroy the Navajo nation. By 1864 he had driven them into De Chelly, a large box



MESA VERDE, APEX OF PUEBLO CULTURE AT THE TIME OF THE NORMAN CONQUEST

canyon, killed their livestock and destroyed the corn fields and peach trees. Those prisoners not massacred were taken on "the long walk," eight hundred miles to Fort Sumner, New Mexico. Here they were held captives for three years. In 1869, when the benevolent government distributed thirty thousand sheep and twenty thousand goats to the released captives, nine thousand Navajos were counted. This number comprised most of the Navajo tribes with the exception of brave Hoskoninni, who led a few of his family and followers to the security of Navajo Mountain. That this census has increased to approximately sixty-eight thousand souls in spite of physical hardship, the handicaps of starvation and disease, attests to his avid and tenacious hold on life.

The late geologist Herbert E. Gregory said: "The Navajo is vigorous, intelligent, and capable of hard work. He will render assistance for pay, frequently for friendship, and is loyal and cheerful when fairly treated. He is independent and will desert with scant ceremony when unjustly treated. He will help himself to interesting trinkets and to food but may be trusted with valuable things and important missions." And I may add that he has a high standard of morality.

Through his Tribal Council he now has a measure of self-government. The Indians' economic plight became more tenuous when stock reduction was decreed by the Depart-



PUEBLO CULTURE TODAY—NAVAJO FAMILY AND THEIR SUMMER HOUSE

ment of the Interior. This severe but wise measure was necessitated by overgrazing. Owing to the heavy snow of last winter, bushy vegetation and forage were abundant. All sheep and horses were well nourished.

When we arrived, Harry and Mike were at the trading post in the company of a number of "Navies" who were pensively eyeing anticipated purchases or draining soda-pop bottles.

This was our second visit to the Valley. Now we had come armed with Geiger counters. Harry had urged us to join him in prospecting for uranium. Ironically enough the empty country ceded to the Indian contains rich lodes of that precious element, and it is to be understood that all claims must be staked out in the name of a member of the tribe, to whom certain profits are paid as well as to the Navajo Tribal Council.

[Turn to page 174]

ESSAYING THE MUSIC FESTIVAL

DOROTHY DANIEL

ONLY twenty-five of the two hundred and fifty college students who attended the Music Festival last November and were registered for the Poll of Student Opinion were music students. Others were majoring in engineering, language, "Biz-Ad," "Phiz-Ed," mathematics, nursing, and other work-a-day subjects.

Twenty more boys than girls enrolled in this poll, sponsored by a special committee of the First International Contemporary Music Festival, but the girls went to more concerts than the boys. The average age of the students was twenty-one.

Forty per cent of the students enrolled were members of the student body at the University of Pittsburgh; 34 per cent came from Carnegie Institute of Technology; Duquesne was represented by 10 per cent of the student participation group; Pennsylvania College for Women accounted for 9 per cent, and Mount Mercy College had 7 per cent enrollment in the student poll.

Students agreed to attend all concerts for which they received tickets, to visit the 1952 Pittsburgh International Exhibition of Contemporary Painting, and to fill out the questionnaire at the conclusion of the Festival. The committee encouraged their attendance at the music seminars held in conjunction with the Festival, invited the students to the press lounge to meet visiting critics and composers, and included the members of the student poll in many of the Festival week's activities.

All these students, however, were instructed that while they were conscientiously to expose themselves to contemporary art and music during the week, their opinions were to be unprejudiced, and that these observa-

tions would be judged solely on originality of thought and sincerity of opinion, and on indication of individual research.

In the opinion of the judges, Jack Gilbert, 5904 Stanton Avenue and a student in the English department at the University of Pittsburgh, won the first prize of \$100 by best stating the proposition:

"First, let me confess that I only know some two dozen of the younger generation who participated. Moreover, these (like myself) are without musical training. Having admitted this, I would say those I know of the younger generation learned almost nothing and that they learned a great deal.

"I think they learned almost nothing about the music as music, about the insides of music. This was to be expected in view of their lack of training and the difficulty of the works played. (They don't understand Wagner after repeated hearings. How then could they fathom the Stravinsky *Symphony for Wind Instruments* or the Schoenberg *Trio for Violin, Viola and Violoncello*?)

"But in another sense, I am sure a great deal was learned—even if it was unlearning. Many of them must have discovered that they had been mistaken in their conception of contemporary music as a muted violin playing a shrill half-tone v-e-r-y slowly. Or partially mistaken! In Malipiero's *Rispetti e Strabotti for String Quartet* they were shown that contemporary music need not be tor-

Mrs. Daniel served as chairman of the public relations committee for the Pittsburgh International Contemporary Music Festival. A former newspaper woman, and wife of the managing editor of the *Pittsburgh Sun-Telegraph* she is the author of *Cut and Engraved Glass 1771-1905*. At present she is working with the new Metropolitan Pittsburgh Educational Television Station.

tured; they were shown by Williams' *Tudor Portraits* that it need not be obscure; and they were shown by Hanson's *Cherubic Hymn* that it need not be arid. Of course, some are impregnable and saw nothing. But those esthetically available saw, albeit dimly, a great deal.

"On the other hand, some learned that music written today is not always 'modern' or even contemporary—as witness Copland's *Lincoln Portrait*, Still's *To You, America*, and most of the commissioned choral works. Also, I think a number retained a suspicion that some composers demanded an excessive amount of work from the audience for the little that was being offered: for example, Schoenberg's *Six Pieces for Piano*.

"The younger generation who went learned that there was contemporary music—and in a context of seriousness and glamour that

made it seem more than a stepchild that must be reluctantly encouraged (however obviously feeble-minded).

"Of greatest importance, they made the acquaintance (however slight) of contemporary music, and familiarity with the music is certainly the biggest need. The music was given a chance to work: to pique the television- and symphonette-softened minds, to dissolve indifference and misconceptions. The minds of the younger generation were plowed, even seeded. Now we need cultivation and a climate of music in which they can grow."

In answer to the question, "How do you listen to music?" 80 per cent of the students stated that recordings and radio were the means by which they heard the greater amount of music. Concerts were a good third in most cases. Television and movies trailed, with movies far behind.

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EVEN before the phone rings or the letter arrives or the knock is heard on the door marked "Laboratory of Recent Invertebrates," you know there's one question you'll have to answer no matter what is about to be asked: *How can I explain this in simple words, without getting too technical?*

Sometimes it's no great problem. Take as an example one question that comes up fairly often.

"I want to know how to tell a male from a female lobster. Every encyclopedia I've looked in gives a different explanation."

"Well, the males have bigger claws, for one thing. You'll notice, too, that the plates at the sides of the body are more concave in females, to form a pouch for the eggs. And if you look close enough you'll find the opening of the genital duct is under the last pair of legs in males and the second pair in females."

On the other hand, an equally simple-sounding question may lead to a complicated answer. For instance, "What can you tell me about animals with more than two eyes?"

Eyes come in all sizes, positions, and numbers, from the single spot of sensory pigment in the lower animals to the highly specialized eyes of the vertebrates. Even among animals without backbones you find simple eyes in some and eyes compounded of many small elements in others. One group of crustaceans have been named Cyclopes because they have only one eye. Small shrimps have four, and spiders six or eight, worn in pairs on their backs. Land snails usually have only one pair, at the end of the longer tentacles. Other mollusks have many little eyes distributed around the edge of the body and numbering as high as sixty in some of the scallops.

A "How?" question is always easier to answer than a "Why?" Not long ago a large population of fresh-water jellyfish suddenly appeared in the casting pool at Highland Park in Pittsburgh and then disappeared just as mysteriously. Why? Although the same thing has happened before and since in many other places, nobody has ever been able to explain it satisfactorily. Of course, any zoologist's career is a long succession of "whys," but one who specializes in invertebrates has to deal with a much wider range of unknowns than his colleagues in other branches. Backboneless animals include more than a hundred different groups, each comprising as many varieties as all the mammals, all the birds, or all the fishes put together. Of round-worms alone there are almost eighty thousand living species, so abundant that any one-acre field supports a population of some three billion individuals leading an unseen but active life a few inches below the surface. You can walk through your own garden every day without ever being aware of this teeming multitude beneath your feet, even though you may be on familiar terms with the birds and other animals living above ground. Invertebrates are not only astronomical in numbers but generally small in size, with the result that there are thousands of kinds even scientists know almost nothing about. To make things still more difficult, many of these minute creatures spend their lives as parasites, in or on other animals.

Mention parasitism and you touch off a series of "how" questions about the ways animals live together in what are called biological associations. Animals of a single species sometimes form colonies, such as those of the corals, or more complex societies

like the anthill and beehive. Associations between members of different species are also common among invertebrates, however. Sometimes one individual profits at the other's expense; sometimes the benefit is mutual. Animals sharing in such associations are often so modified by the resulting adaptation that they lose all resemblance to some of their own kindred. The parasite *Pennella* that lives as a nonpaying guest in the skin of whales, belongs to the large tribe of crawfish, but once out of the embryo stage it looks like nothing so much as a long paintbrush.

The familiar sponge can be either a handy implement or a source of perplexity, depending on whether you are trying to use it or understand it. As recently as a hundred years ago sponges were generally believed to be plants, and for a long time they were grouped with corals and other borderline animals under the convenient misnomer of "zoophytes," or plant-animals. Aristotle's insistence that they were animals met with nothing but derision because he was two thousand years ahead of his time. His contemporaries regarded a sponge as a kind of lifeless submarine beehive, sometimes used for a nest by crabs and worms. The error was long-lived: in certain herbaria of the sixteenth century, sponges were classified among the mosses, and not until about 1865 did they finally assume their rightful place in the animal kingdom.

Sponges are not the only invertebrates that have confused scientists as well as laymen. Adult specimens of various different groups often show superficial resemblances suggesting false relationships, and many long-standing classifications had to be changed after

Mr. Parodiz is associate curator in charge of the section of invertebrates—the living, as distinct from the fossil forms. He came to Carnegie Museum in January 1952, after twenty years as invertebrate zoologist at the Argentine Museum of Natural Science in his native Buenos Aires.

embryology came into vogue around 1850. Thus, Vaughan Thompson studied the larval development and metamorphosis of the barnacles, showing that they were crustaceans instead of mollusks. The ascidians, those pitcher-shaped fixed animals of the sea, were classed among the so-called nude mollusks until 1866, when Kowalevsky discovered the embryonic form, very similar to those of the vertebrates. Today they constitute a separate phylum, Pre-Vertebrata or Pre-Chordata.

A horseshoe crab brought home from a seaside vacation in New England often sets the laboratory phone ringing.

"Is this really a crab?" the caller wonders.

"Whether you call it horseshoe crab, king crab, or *Limulus*, the answer is still 'No,'" we reply. "It's a spider. That's right—a giant sea-spider. It may not look like one, but that's what can happen when one branch of an animal family wanders off from the main line and takes up an altogether different mode of life."

Notwithstanding its original departure from ancestral spider tradition more than 300 million years ago, this creature has one of the longest known records for conservatism in evolution. Through all the transformations the animal kingdom has experienced since the Coal Age, the horseshoe crab has shown a complete lack of enthusiasm for new fashions. The oldest human dynasties, such as those of the Ethiopian emperors who trace their descent from the Queen of Sheba, are mere upstarts compared with the venerable *Limulus*, still adding generation to generation in the face of the extinction to which it is destined by the doom of Time. Many other groups of animals are surviving in the same way, like kings in ostracism. The pyramids of Egypt were built with limestone containing incalculable numbers of fossil capsules of the one-celled Foraminifera *Nummulites*, thousands of times older than the monuments.

These were real giants in the animal kingdom of the remote past, but today they are represented only by microscopic creatures that cover the vast area of the ocean floor.

This raises one of the biggest questions of all: Why must *Limulus*, or for that matter any other group, eventually die out? (Why, again!) Well, first let's consider what extinction means. There are two quite different kinds: the disappearance of one species or a few species, leaving many close relatives still alive, and that of much larger groups such as entire classes or phyla. This second, wholesale kind of extinction always involves highly specialized groups that have lost the power of adaptation and succumbed to the competition of younger, more plastic forms. The law of Nature is that any line of development carried to an extreme must end in decadence and destruction. There are plenty of examples among the invertebrates, whose

fossil remains show how group after group has died out when it became too senile to change with a changing world. Beyond the death of the individual, whether by illness or catastrophe, lies a slow, silent, but inexorable doom: phyletic death. Even in human societies the same causes are followed by similar effects. The Roman Empire comes immediately to mind, although it is not necessary to go so far back to find examples...

You can see why the curator shakes his head over the perennial problem: *How can I answer this simply?* One question leads to another so irresistibly that instead of getting a neat, concise answer you may find yourself involved in a biological labyrinth. There is little danger of having to wander through it indefinitely, however. We keep a full set of Ariadne's threads on hand to help you find the way out. And thus far, we have never lost a visitor.



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Daughter-in-law's relatives*

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THE JOY OF LEARNING

The Annual Nature Contest

JANE A. WHITE

ONCE again the Nature Contest is proving itself popular. On Saturday, May 2, hundreds of eager young faces from Pittsburgh public, private, and parochial schools, as well as from schools in the tri-state area may be seen here at Carnegie Institute for the twentieth year of the Nature Contest. It is always timed appropriately for spring, when everyone's attention is focussed on what's going on in nature. The tremendous advantage of the Division of Education's Contest is to teach by observation how to look—to see—to recognize—to remember—and to conserve.

There are so many contestants that the space of Sculpture Hall is needed and two identical contests are set up to accommodate all the young people.

The Nature Contest has demonstrated each year to all interested in education that the values of such a project can be stimulating, exciting, and very instructive. Great effort, thought, and knowledge are combined in planning this annual event. Those highly trained members of the staff who have had years of experience in teaching both in the schools and the Museum know how to make this contest fascinating and meaningful. Close co-operation is carried on between the educational staff and the schools and communities represented by the schools.

The study lists, consisting of biological questions and specimens that must be studied and recognized, and a natural-history cross-

Miss White is supervisor of science in the Division of Education at the Institute, which conducts the Nature Contest. A graduate of University of Pittsburgh, she is interested in many community projects.

word puzzle, have been sent to the schools in advance. The students and teachers have had an opportunity to study and prepare for the contest. Frequently, in a situation where there is no science teacher in the school, this project serves as a course of study. Often when the children are seeking specimens, many members of the community are approached by the children for aid and guidance, and it becomes a challenge for some of the grown-ups. Thereby, through the children themselves, the influence of the Institute reaches out to the communities.

The seed for the contest was planted and nurtured at the Museum in 1933, but it took only one year for the roots to spread to the outlying districts. Schools in and around Waynesburg, for example, used our contest as a pattern for their own the second year after the contest was started. Their nature contest also has continued throughout the years, and each year's winner receives a scholarship in biology for Waynesburg College. Other schools have simplified our pattern and have their own elimination contest, after which their winners are entered in the Carnegie Nature Contest.

When one school was preparing for the contest and working on the study list this is what happened. Question 12 of the study list was 'In what kinds of rocks do we find fossils?' One youngster volunteered the information that he thought he had seen some fossils behind the school building where a road was being constructed. The whole class went outside to search, and sure enough did find some fossils and sent them in to the Museum for identification. So interested did the

children become in this real-life experience that this impetus started a school museum. This is only one of many instances in which Carnegie Institute's Nature Contest had made things happen in numerous communities.

On the day of the contest the youngsters are ready and come as only the young can, with spirit and verve, to prove themselves and thereby to experience the great satisfaction of learning. The simple truth of the success of this wholesome activity is that our young people actually see the exhibits and learn by observation how to go back into their communities and take care to conserve those plants and animals which are vital. Even if they know very little about nature before the contest, they then begin to have the desire to learn more.

The entire atmosphere of the Museum and of the contest expresses itself to the growing children of our community somewhat like this: this Museum, with its vast storehouse of fascinating material is yours—yours to enjoy—to learn from—and to share with all the others of the community—yours to come back to frequently. It is here in our midst and it belongs to you.

EARLY AMERICAN SILVER

[Continued from page 157]

smith of Revolutionary times in America. The most important piece in the group is a large flat-top tankard which is thus described by John Marshall Phillips, director of the Yale University Art Gallery and probably the leading authority on American silver: "The flat-topped tankard made about 1700 by John Coney, Boston's outstanding silversmith during the first two decades of the eighteenth century, is the largest known example dating from this time, weighing originally fifty ounces. Another unusual feature beside its size is the presence of nine pegs on the interior to measure the contents, a

unique feature in American tankards. The mask and dolphin thumbpiece shows the quality of Coney's craftsmanship, as does the cherub's head on the tip of the handle."

These pegs, incidentally, were used not only to ration the share of each drinker in the contents of the cup but were sometimes used competitively to test the ability of individuals to consume the strong drink of the period.

The child's cup is considered a masterpiece of fluting and reeding, and the cast handle is especially fine. The over-all design is based on a British pottery form of the period.

The dome-topped tankard probably dates from 1715-20.

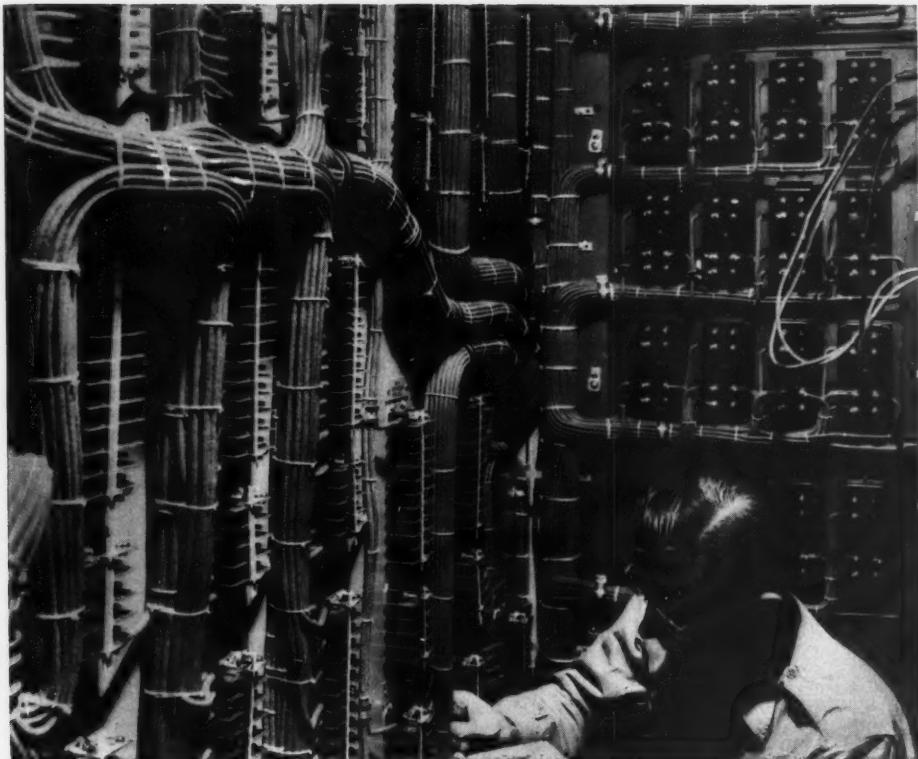
The two English pieces are works of outstanding silversmiths and are shown by way of contrast.

THE HOLY PEOPLE—NAVAJO

[Continued from page 167]

Jeep and trailer loaded with Geiger counters, tents, provisions, photographic equipment, and auxiliary gasoline and water, we vibrated over the corduroy road past the great volcanic plug, El Capitan, to Kayenta. Frank Bradley, one of the Tribal Council, joined the trio, and we were off for a memorable week in the maze of deep canyons about Navajo Mountain, always on the lookout for the geological strata likely to contain the valuable yellow ore, carnotite. Our uranium strike was insignificant, but we returned steeped in Navajo lore, appreciation of the desolate canyons of the desert, and with the conviction that we had found an unknown natural bridge.

We will always remember Harry's profound observation as "Fisheyes" packed his mountain of photographic impedimenta. "Good-bye," said he. "Following a camera is like following a cow—it leads one into the damnedest places."



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ART AND NATURE BOOKSHELF

M. GRAHAM NETTING

WHERE WINTER NEVER COMES

By MARSTON BATES (\$3.50)

Charles Scribner's Sons, New York, 1952
310 pp., black and white diagrams and maps
Carnegie Library call no. 910 B31

WENT swimming in Gatun Lake at 3, taking camera to photograph cecropia tree on point and orchid by steps. Sat on porch reading and saw 2 white-faced monkeys come to the Panama trees at 4:30. They were in a most playful mood—holding on with hind legs they would bounce up and down on a branch with stiff forelegs. Occasionally they stopped to peer intently at us. Frequently they gave a short, hacking cough, something like the sound I make when subjected to a tongue depressor. . . .

The above paragraph is a fragment from my diary written nineteen years ago this spring, on Barro Colorado Island, Canal Zone. To me the locale was new, the tropical environment familiar, but I was savoring one of life's deep satisfactions, the pleasure of introducing a beloved person to a much loved region and finding that it evoked instantaneous pleasure. In my wife's delight at dozens of daily firsts—the first *pico feo* ("ugly bill" or toucan) following its bill across the sky, the first taste of pineapple, spoon-soft from the plant, the first anteater riding its youngster piggy-back—I relived most of my own initial love-at-first-smell of the tropics.

As may be judged from this introduction, I find it very easy to become emotional about the tropics. Marston Bates, infinitely more experienced in life between Cancer and Capricorn, is a kindred spirit, for he confesses that he wrote *Where Winter Never Comes* to pay off an emotional debt. This debt he has satisfied in bounteous measure, for his book is the best

introduction to the tropics—about which a distressing amount of balderdash has been written—that I have read.

This is not a travel book. It is instead a completely absorbing interpretation of the natural history and human ecology of low latitudes. It deserves to be placed beside Rachel Carson's *The Sea Around Us*, for it explains the tropics as she does the sea. I find it equally hard to review because there is so much that I should like to comment upon and so little space in which to do so.

"Civilized man has got completely used to lording it over the landscape, turning everything into neat orchards and fields, or dismal wastes of cutover second growth. It is a humbling experience, and surely a healthy one, to enter a landscape that man has not been able to alter, to dominate, to twist to his own purposes. Man in the rain forest is just another rather simple animal, walking quietly and apprehensively, scared at the snapping of a branch, not sure where he will find his next meal. He gains a new perspective in this complex world which he has not yet been able even to catalogue, let alone control. It is not a hostile world, but it is very indifferent to human needs and human purposes."

And this indifferent world is of inestimable importance to us "Yanquis." Our interests are international, but our picture window faces south. The Caribbean is the Mediterranean of the Western world and our good neighbors around and beyond it are now only hours away by airplane. It would be revealing indeed to try to imagine life in Pittsburgh without things that Latin America supplies—from coffee to aluminum ore, or contrariwise life in Rio or Caracas without products from

the United States "of the north." These commercial ties will continue to grow, but hemisphere solidarity must be firmly rooted in the good soil of mutual understanding. To this end I would like to see Pittsburgh firms lead the nation in promoting such good neighborliness by presenting a copy of this book to every southbound employee.

My suggestion if followed—and I have no financial ties with Scribner's—would be good business, for Bates rips away those misconceptions that limit the effectiveness of altogether too many Americans. For example, "The white man's burden in the tropics is not the burden of educating, improving, or governing the poor benighted natives; it is the burden of his own culture which he has carried into an alien environment."

Furthermore, Bates writes not only authoritatively but pungently. Having learned to my own dismay how hard it is to find snakes in the rain forest and how easy it is to be found by ants I can heartily second his statement of real hazards: "I cannot brag about the Villavicencio snakes, but I'll back the ants against all comers. It is rather awkward to come across a nest of these insects fifty feet up in a tree, with only climbing irons as support. You simply can't take your pants off and at the same time leave the belt fastened around the tree, and it becomes a matter of deciding between sudden death from the fifty-foot drop and slow torture with both ants and pants in place."

Each of the sixteen chapters in this book is filled with well-documented information based upon personal experiences and a thorough knowledge of the extensive literature on the tropics. Following graduation from the University of Florida in 1927,

Dr. Netting, assistant director and curator of herptiles at the Museum, has made expeditions to the West Indies, Venezuela, and Panama. He is secretary of the Western Pennsylvania Conservancy.

Marston Bates served as a research entomologist for the United Fruit Company in Honduras and Guatemala. After a brief interruption for graduate schooling at Harvard he turned south again to study animal distribution for a year and then joined the Rockefeller Foundation as a field biologist, an association that continued for a decade and included eight years as head of the Foundation's yellow fever research in Colombia.

"People have been eating for a long time now" introduces the discussion of food and drink in which Bates makes the sound observation that "food, instead of being a basis for common understanding, becomes a basis for scorn, arrogance, ridicule and misunderstanding: as culture-bound as clothes, language or religion." He points out that the very people who should approach human food problems on a broad international basis frequently fail to do so. "But nutrition experts, when removed from their cultural context, often seem at a loss. Some of them appear to be horrified at the fact that non-Western peoples eat non-Western foods, and there is a tendency to try to remedy this situation by attempting to persuade the Chinese to drink their milk or the Arabs to eat their spinach." Whether or not you have any craving to eat juice-dripping mangoes or to experiment with the potency of pulque, you cannot read this chapter without acquiring a broader tolerance of the food habits of peoples uninfluenced by breakfast food programs on radio or television.

On my first trip to the tropics I read on shipboard a text on parasitology and Charles Kingsley's delightful *At Last*. On arrival I was thoroughly aware of parasites and somewhat grounded in botany, but wholly untutored in fundamentals that Bates explains so clearly. Anyone tropic-bound is doubly fortunate if privileged to read *Where Winter Never Comes* en route.

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